OIPE JC10
MAR 15 2004
PATENT & TRADEMARK OFFICE

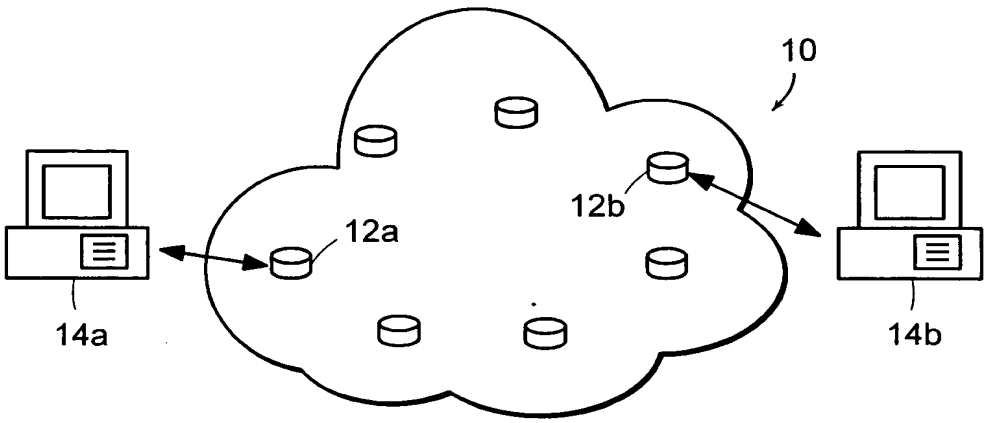


FIG. 1

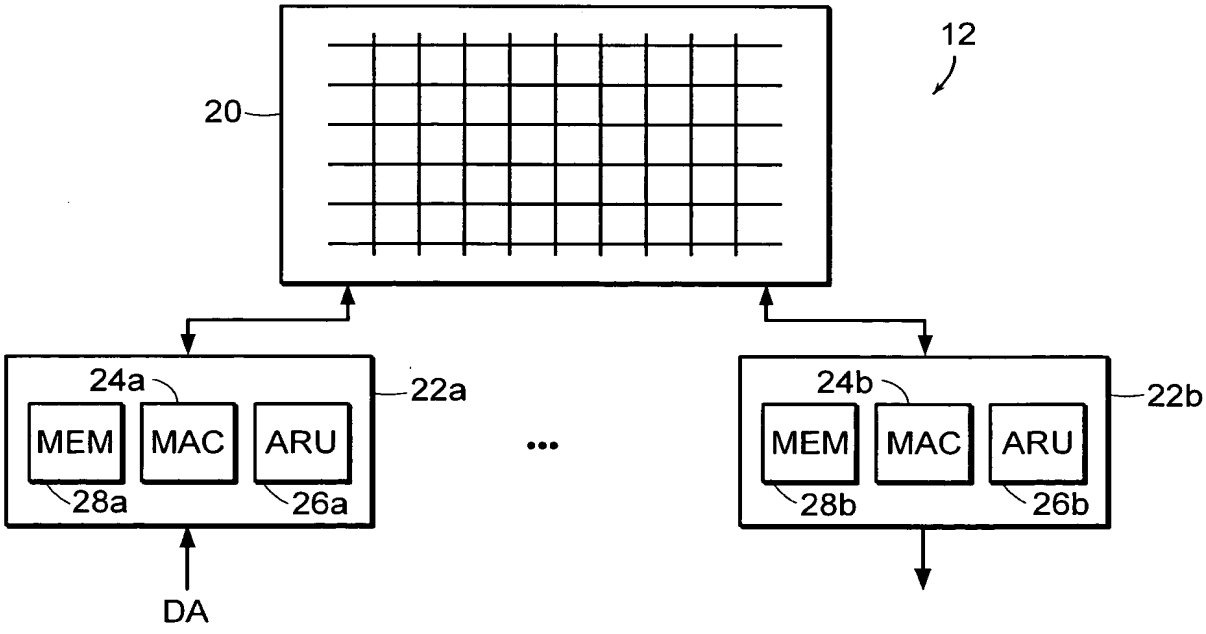


FIG. 2

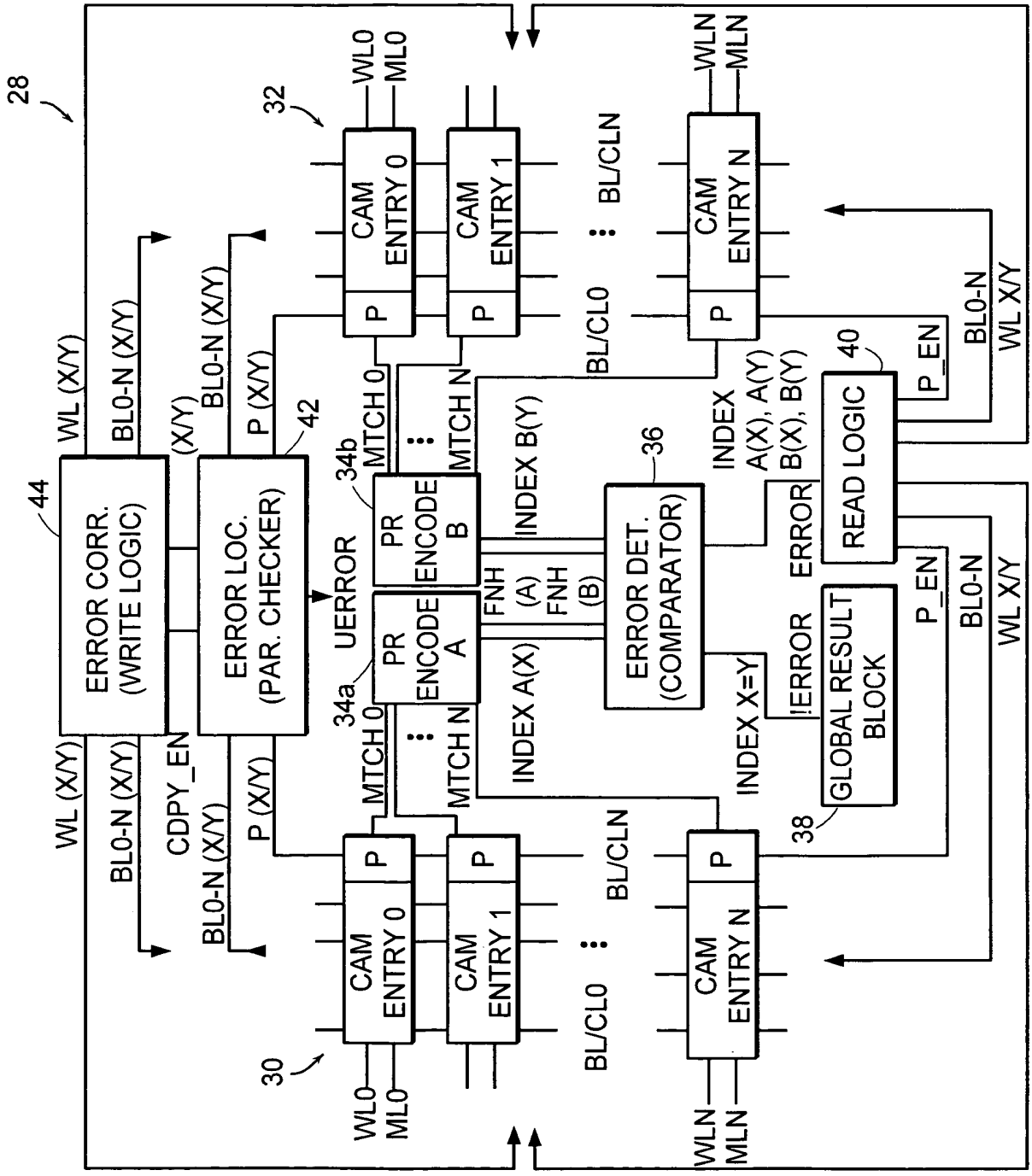
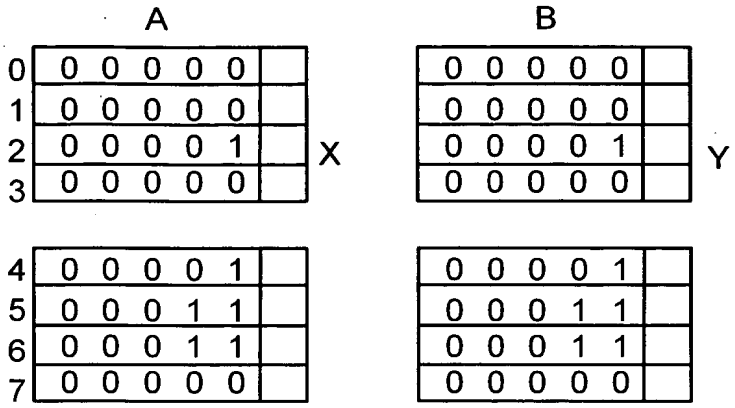
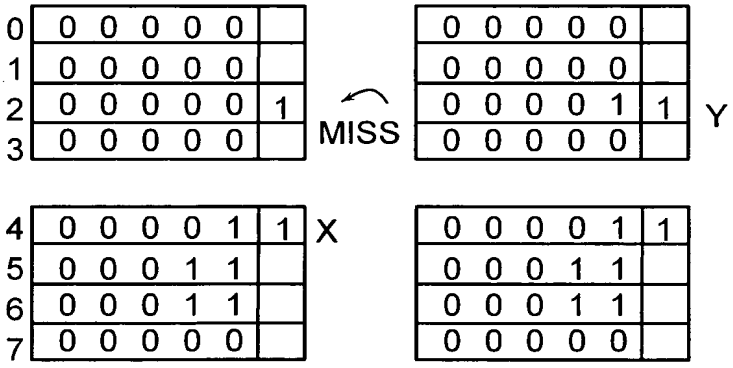

28
44
ERROR CORR. (WRITE LOGIC)
ERROR LOC. (PAR. CHECKER)
42
WL (X/Y)
BL0-N (X/Y)
(X/Y)
P (X/Y)
CDPY_EN
UERROR
32
30
CAM ENTRY 0
CAM ENTRY 1
CAM ENTRY N
P
WL0
ML0
WLN
MLN
BL/CL0
BL/CLN
34a
34b
PR ENCODE A
PR ENCODE B
MTCH 0
MTCH N
INDEX A(X)
INDEX B(Y)
FNH (A)
FNH (B)
36
ERROR DET. (COMPARATOR)
INDEX A(X), A(Y) B(X), B(Y)
INDEX X=Y
ERROR
!ERROR
38
GLOBAL RESULT BLOCK
40
READ LOGIC
P_EN
BL0-N
WL X/Y

FIG. 3



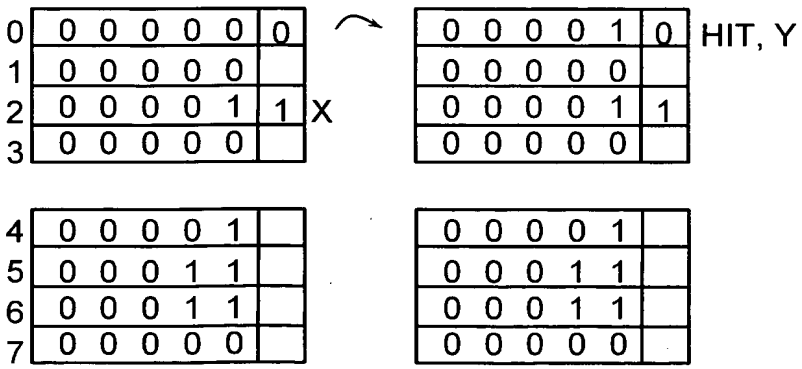
A(X) = B(Y) = 2; ! ERROR

FIG. 4A



A(X) = 4; B(Y) = 2; ERROR
READ=> A(X), A(Y), B(X), B(Y)

FIG. 4B



A(X) = 2, B(Y) = 0; ERROR
READ=> A(X), A(Y), B(X), B(Y)

FIG. 4C

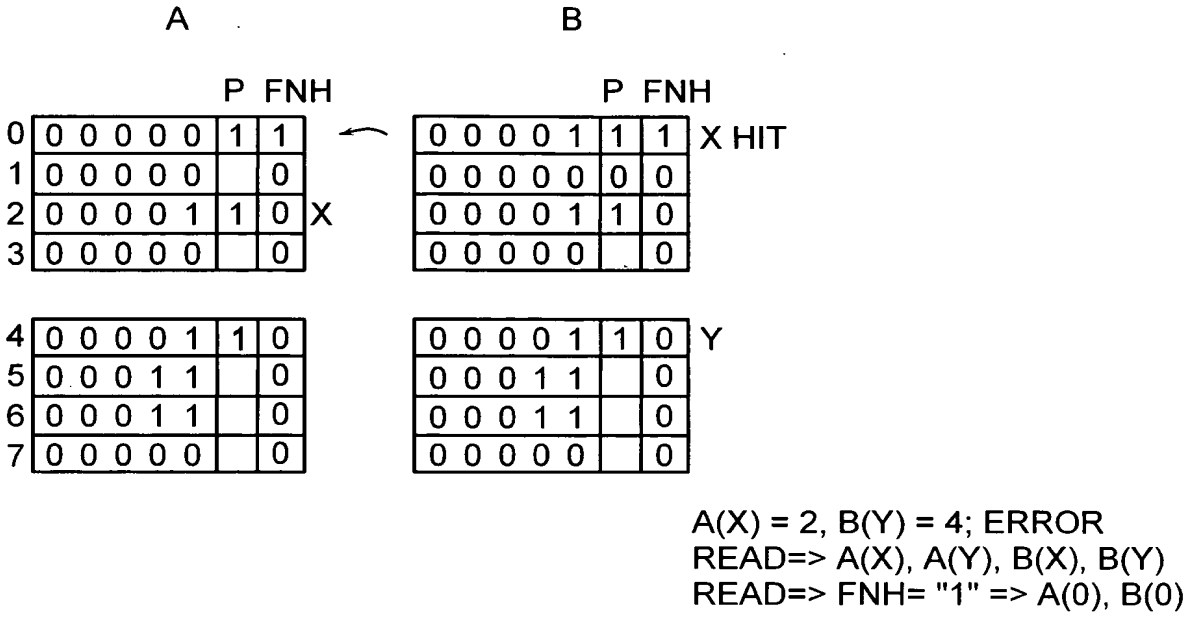

A
B
P FNH
P FNH
0 0 0 0 0 0 1 1
0 0 0 0 0 1 1 1 X HIT
1 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0
2 0 0 0 0 0 1 1 0 X
0 0 0 0 0 1 1 0
3 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0
4 0 0 0 0 0 1 1 0
0 0 0 0 0 1 1 0 Y
5 0 0 0 1 1 0
0 0 0 1 1 0
6 0 0 0 1 1 0
0 0 0 1 1 0
7 0 0 0 0 0 0
0 0 0 0 0 0
A(X) = 2, B(Y) = 4; ERROR
READ=> A(X), A(Y), B(X), B(Y)
READ=> FNH= "1" => A(0), B(0)

FIG. 5

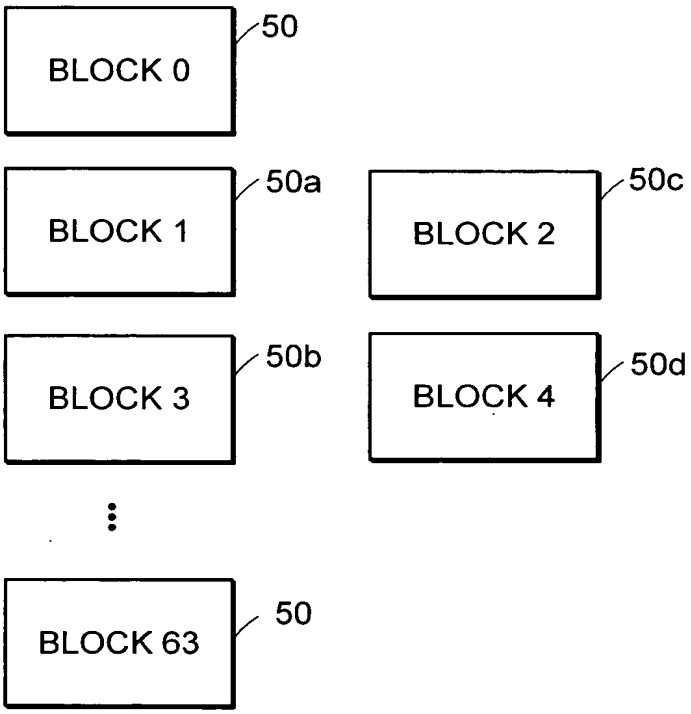

BLOCK 0
50
BLOCK 1
50a
BLOCK 2
50c
BLOCK 3
50b
BLOCK 4
50d
BLOCK 63
50

FIG. 6

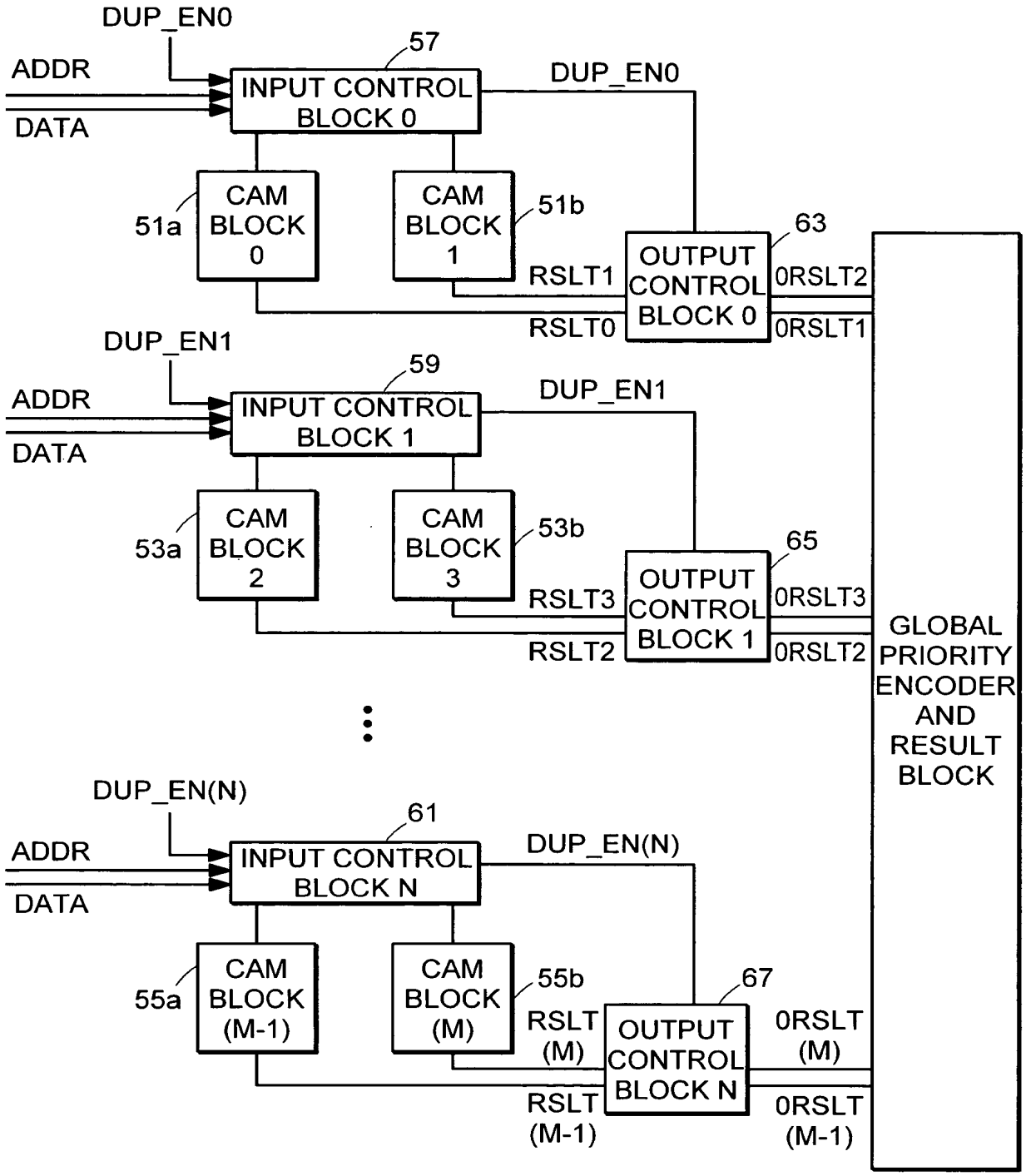

DUP_EN0
ADDR
DATA
57
INPUT CONTROL BLOCK 0
DUP_EN0
51a
CAM BLOCK 0
CAM BLOCK 1
51b
63
RSLT1
RSLT0
OUTPUT CONTROL BLOCK 0
0RSLT2
0RSLT1
DUP_EN1
ADDR
DATA
59
INPUT CONTROL BLOCK 1
DUP_EN1
53a
CAM BLOCK 2
CAM BLOCK 3
53b
65
RSLT3
RSLT2
OUTPUT CONTROL BLOCK 1
0RSLT3
0RSLT2
GLOBAL PRIORITY ENCODER AND RESULT BLOCK
DUP_EN(N)
ADDR
DATA
61
INPUT CONTROL BLOCK N
DUP_EN(N)
55a
CAM BLOCK (M-1)
CAM BLOCK (M)
55b
67
RSLT (M)
RSLT (M-1)
OUTPUT CONTROL BLOCK N
0RSLT (M)
0RSLT (M-1)

FIG. 7

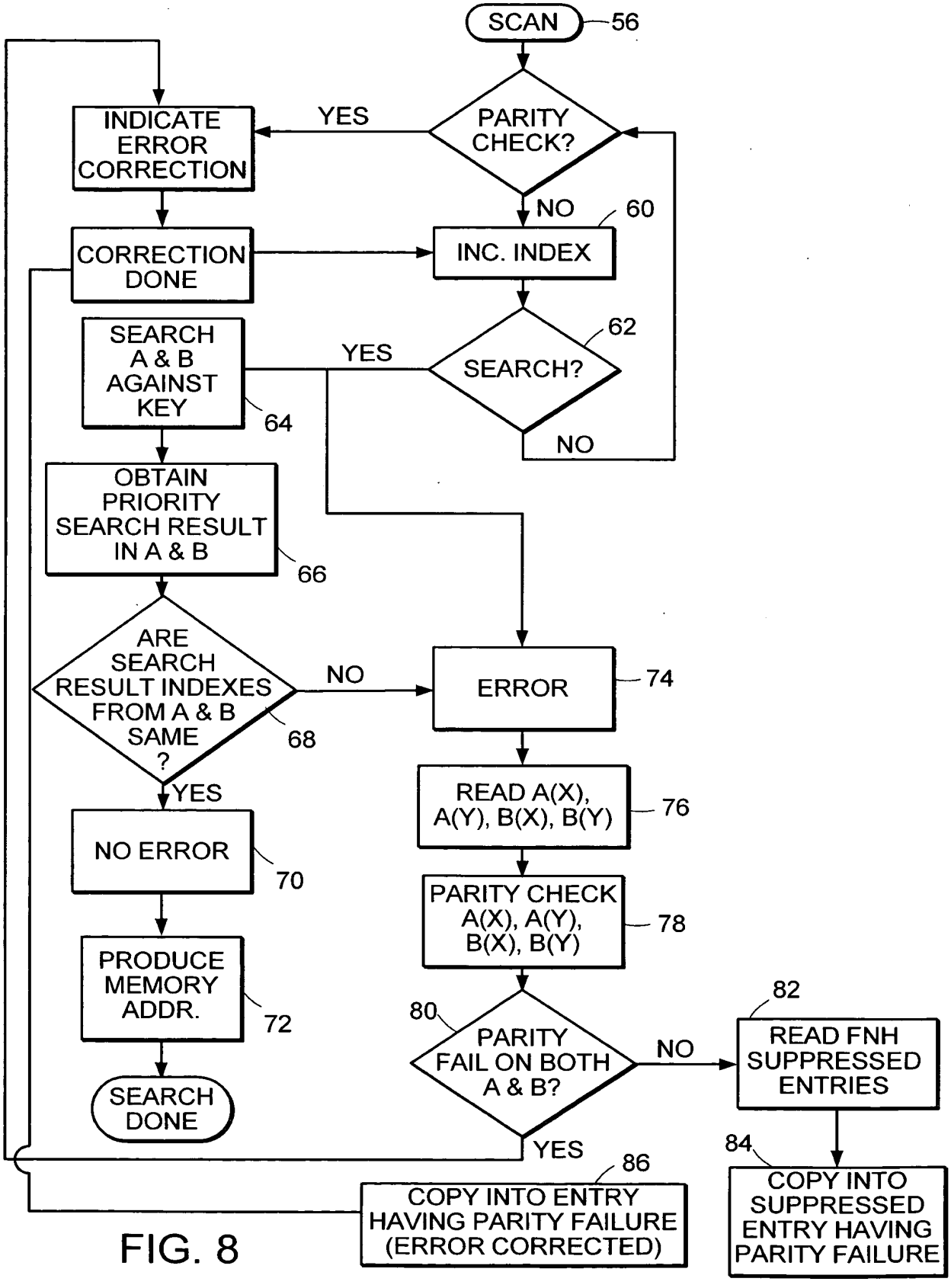

SCAN
56
PARITY CHECK?
YES
INDICATE ERROR CORRECTION
NO
60
INC. INDEX
CORRECTION DONE
62
SEARCH?
YES
SEARCH A & B AGAINST KEY
64
NO
OBTAIN PRIORITY SEARCH RESULT IN A & B
66
ARE SEARCH RESULT INDEXES FROM A & B SAME ?
68
NO
ERROR
74
YES
READ A(X), A(Y), B(X), B(Y)
76
NO ERROR
70
PARITY CHECK A(X), A(Y), B(X), B(Y)
78
PRODUCE MEMORY ADDR.
72
80
PARITY FAIL ON BOTH A & B?
82
NO
READ FNH SUPPRESSED ENTRIES
SEARCH DONE
YES
84
86
COPY INTO ENTRY HAVING PARITY FAILURE (ERROR CORRECTED)
COPY INTO SUPPRESSED ENTRY HAVING PARITY FAILURE

FIG. 8